



/ Descriptions

TO-252 P ! " # \$ % & '

P-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

$$R_{DS(on)}(\text{ }^{\circ}\text{C}^{\circ})^{*} + , -) C_{RSS}(\text{ }^{\circ}\text{C}^{\circ}) . / 0 1 2) ! 3 4 5) 6 7 8 9 '$$

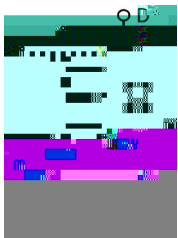
Low $R_{DS(on)}$, low gate charge, low C_{RSS} , fast switching, Trench Technologies. HF Product.

/ Applications

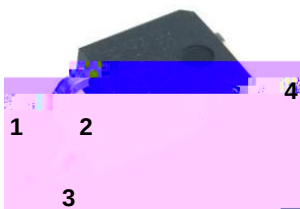
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: ; - < + = > ? @ A + = B D C / D C C D B E F G 8 9 H + I J $ C D '
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Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

/ Equivalent Circuit



/ Pinning



PIN1 ? G

PIN 2 ? D

PIN 3 ? S

PIN 4 ? D

/ h_{FE} Classifications & Marking

K L M N O ' See Marking Instructions.

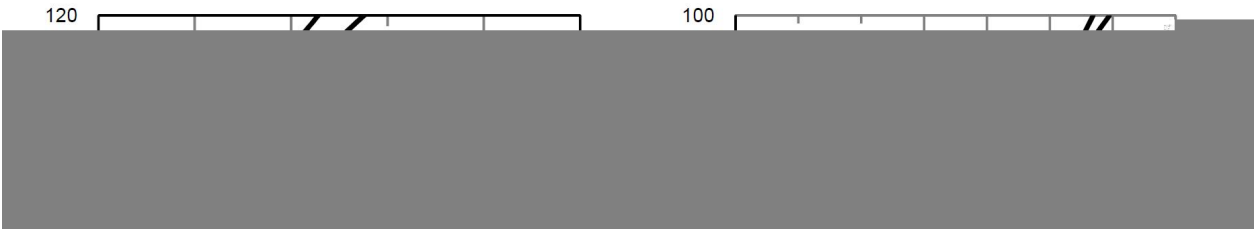
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	40	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	-40	A
Drain Current - Pulsed		I_{DM}	-115	A
Gate-Source Voltage		V_{GS}	± 20	V
Avalanche Current		I_{AS}	24.5	A
Single Pulsed Avalanche Energy (L=0.5mH)		E_{AS}	210	mJ
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	52	W
Storage Temperature Range		T_{stg}	-55~150	$^\circ\text{C}$
Thermal Resistance-Junction to Ambient	$t \leq 10\text{s}$	$R_{\theta JA}$	20	$^\circ\text{C/W}$
	Steady-State		50	
Thermal Resistance-Junction to Case	Steady-State	$R_{\theta JC}$	2.4	

28970 0.04700

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=1\ \Omega$ $R_{GEN}=3\Omega$		9.4		ns
Turn-On Rise Time	t_r			20		
Turn-Off Delay Time	$t_{d(off)}$			55		
Turn-Off Fall Time	t_f			30		

/ Electrical Characteristic Curve



BRCS150P04DP

Rev.A Mar.-2022

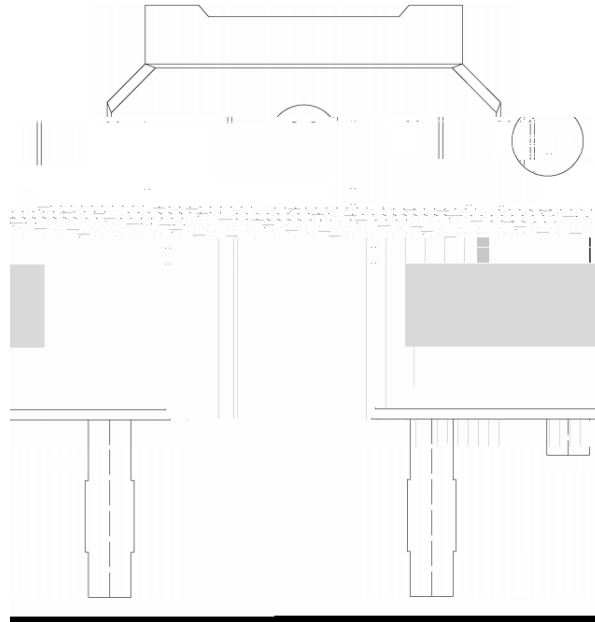
DATA SHEET

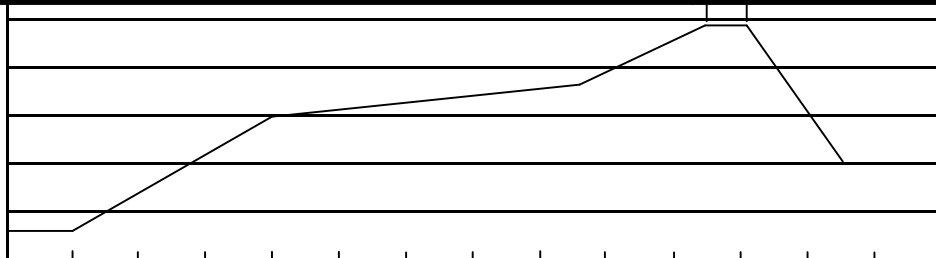
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Rev.A Mar.-2022

DATA SHEET

/ Marking Instructions





Note:

- | | | | |
|---|-----------|-------------|---|
| 1 | 150 ~ 180 | 60 ~ 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245 ± 5 | 5 ~ 0.5sec; | 2.Peak Temp.:245 ± 5 , Duration:5 ~ 0.5sec. |
| 3 | 2 ~ 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260 ± 5 10 ± 1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
							盒	箱
						"		

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
						套管	盒	箱

/ Notices